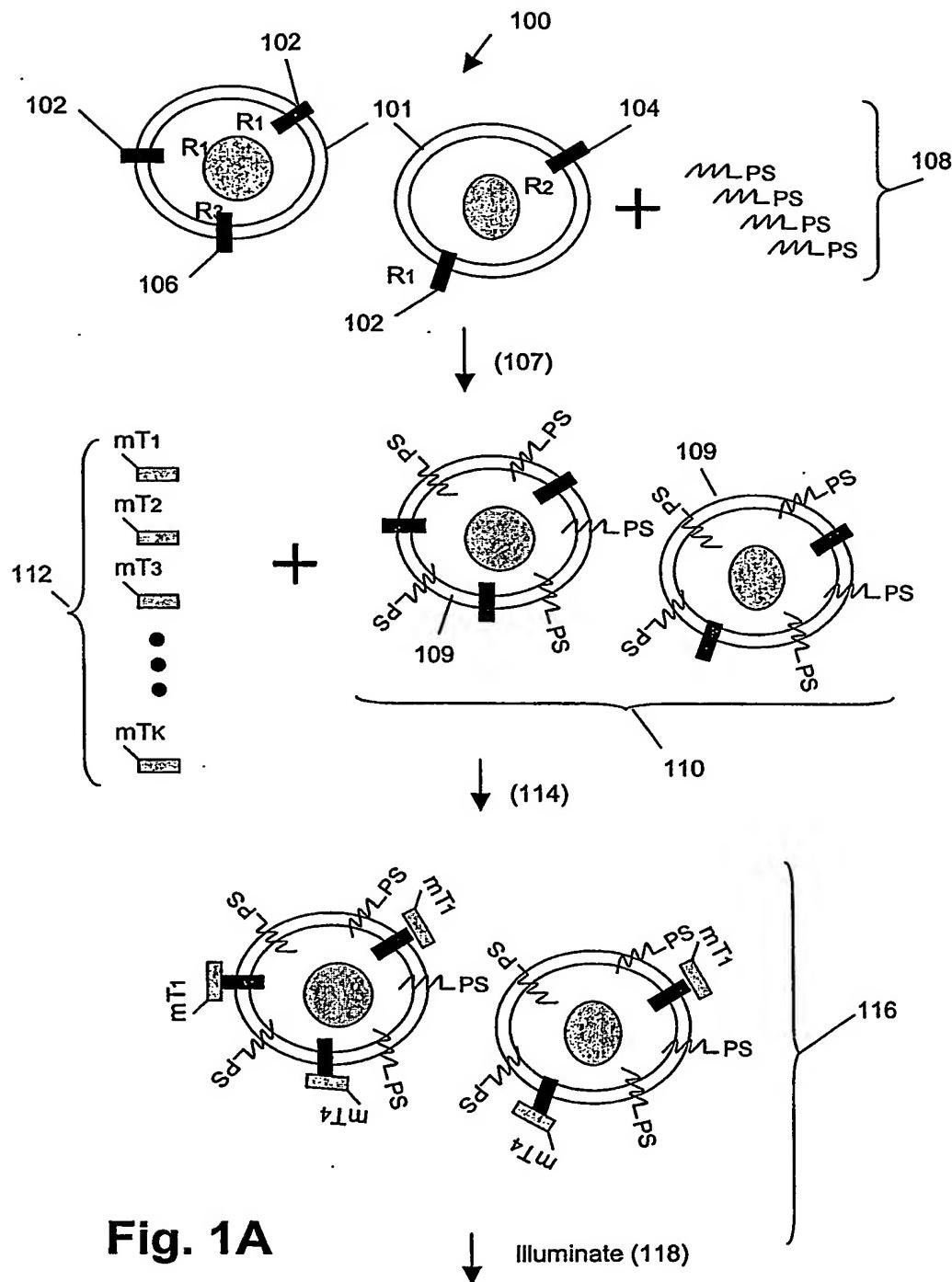
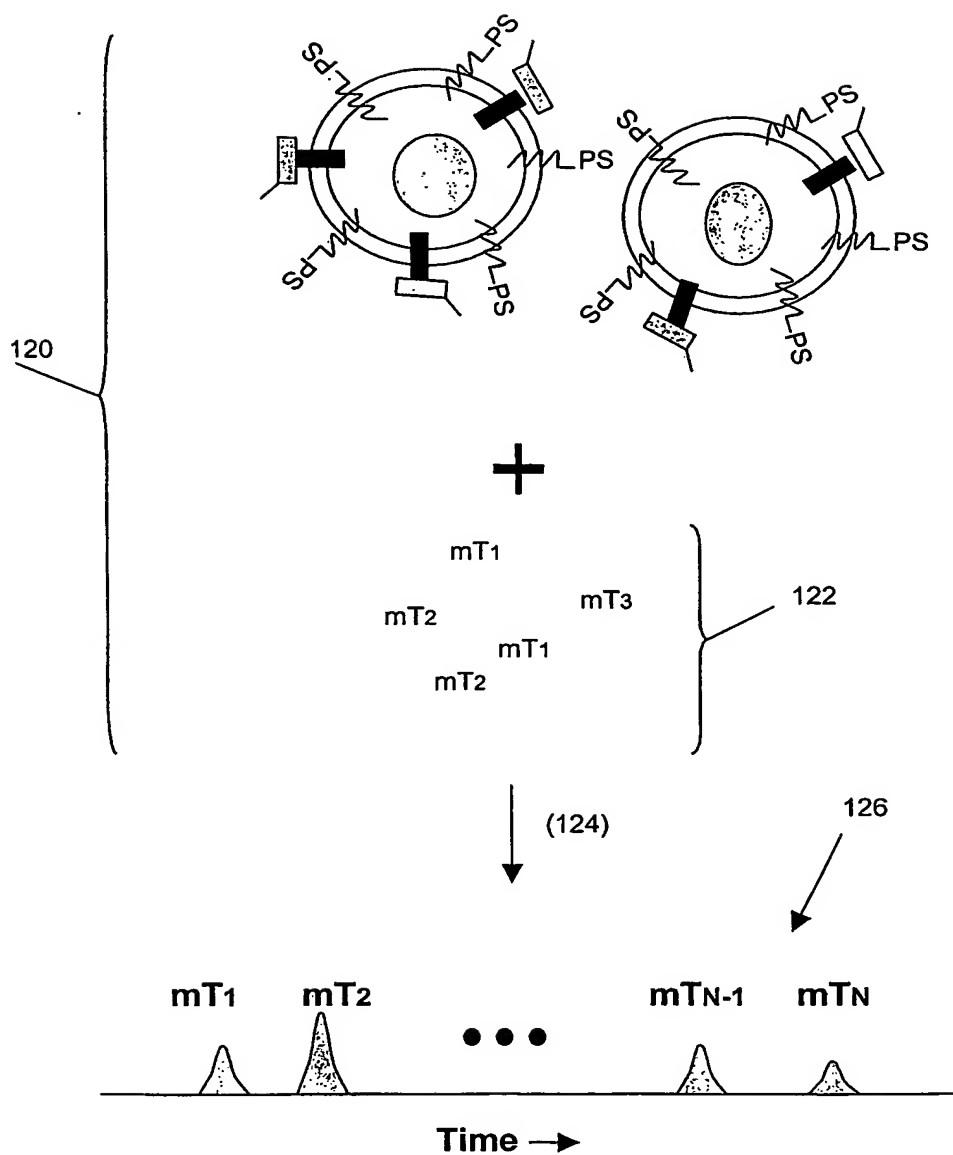


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**Fig. 1B**

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130
mT1-XX1-AA2-AA3-AA4- ... -AAN

132
mT2-AA1-XX2-AA3-AA4- ... -AAN

134
mT3-AA1-AA2-XX3-AA4- ... -AAN

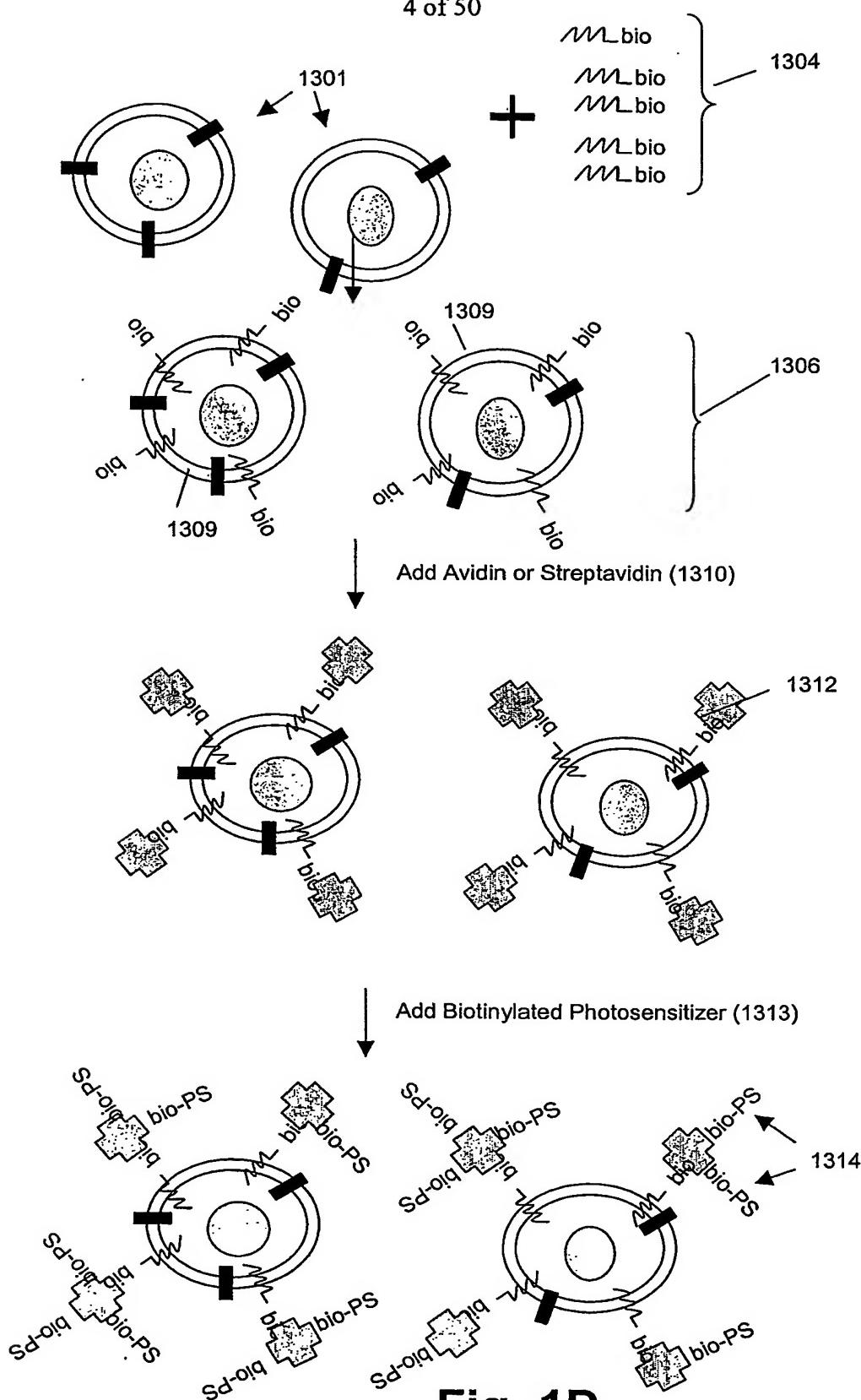
mT4-AA1-AA2-AA3-XX4- ... -AAN

⋮

mTk-AA1-AA2-AA3-AA4- ... -AAN

Fig. 1C

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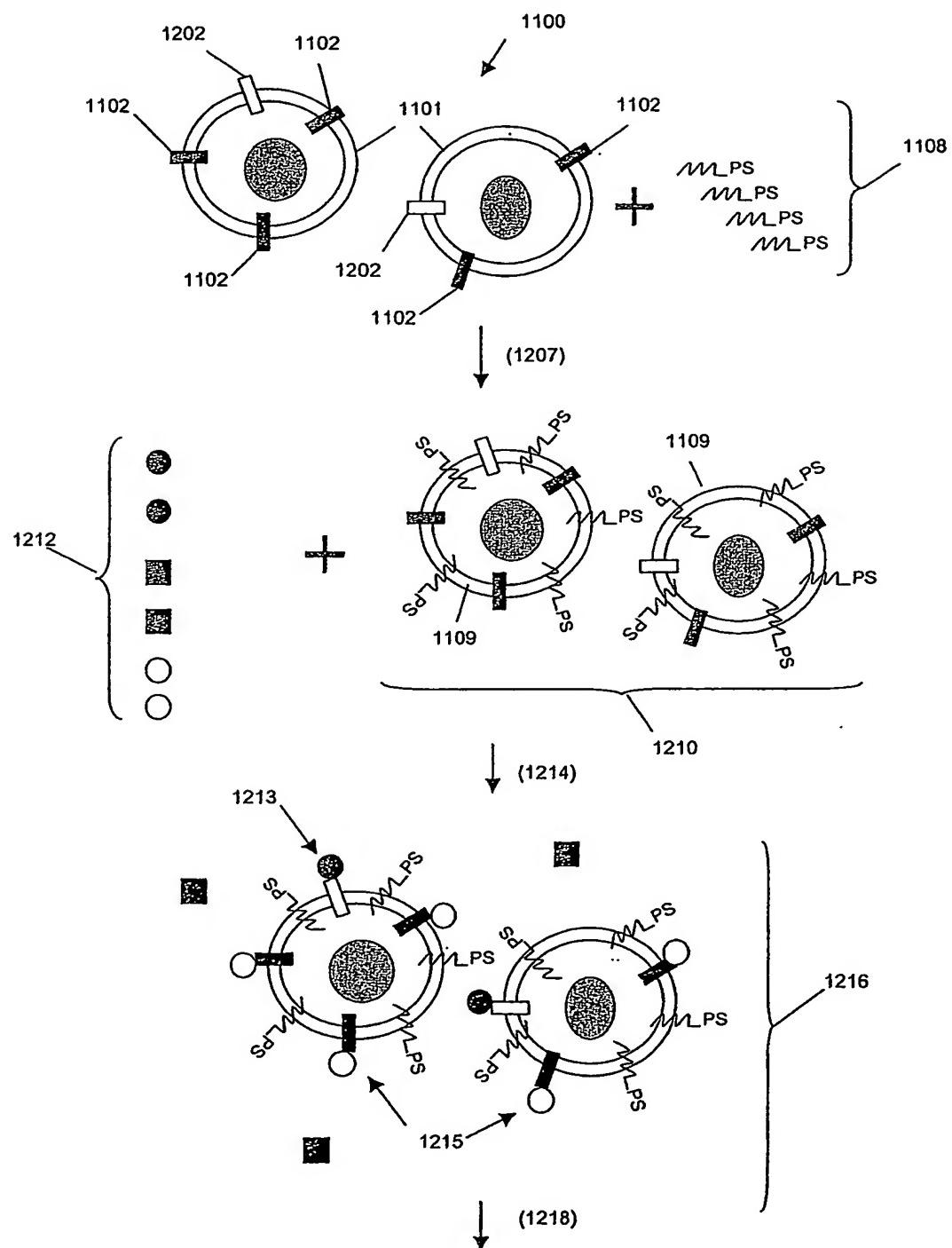


Fig. 1E

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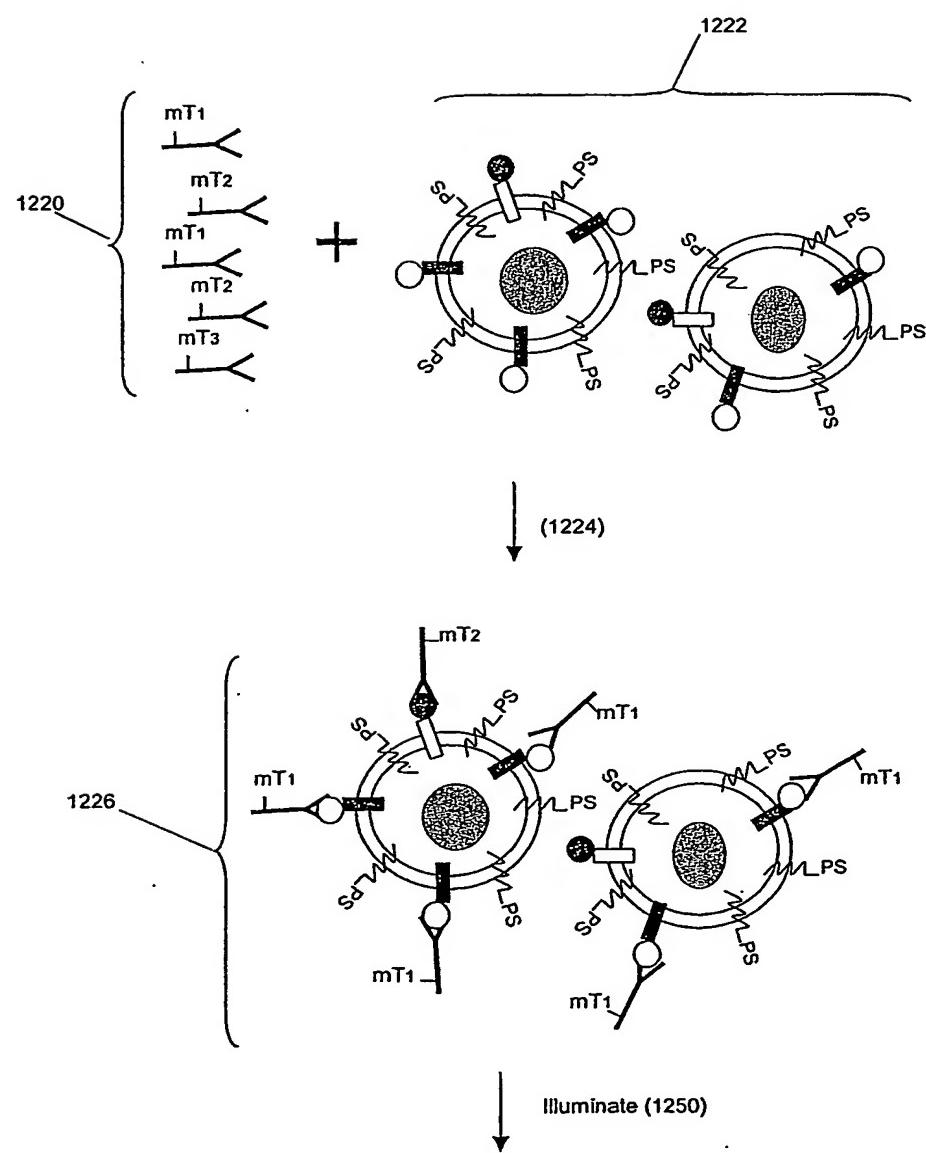


Fig. 1F

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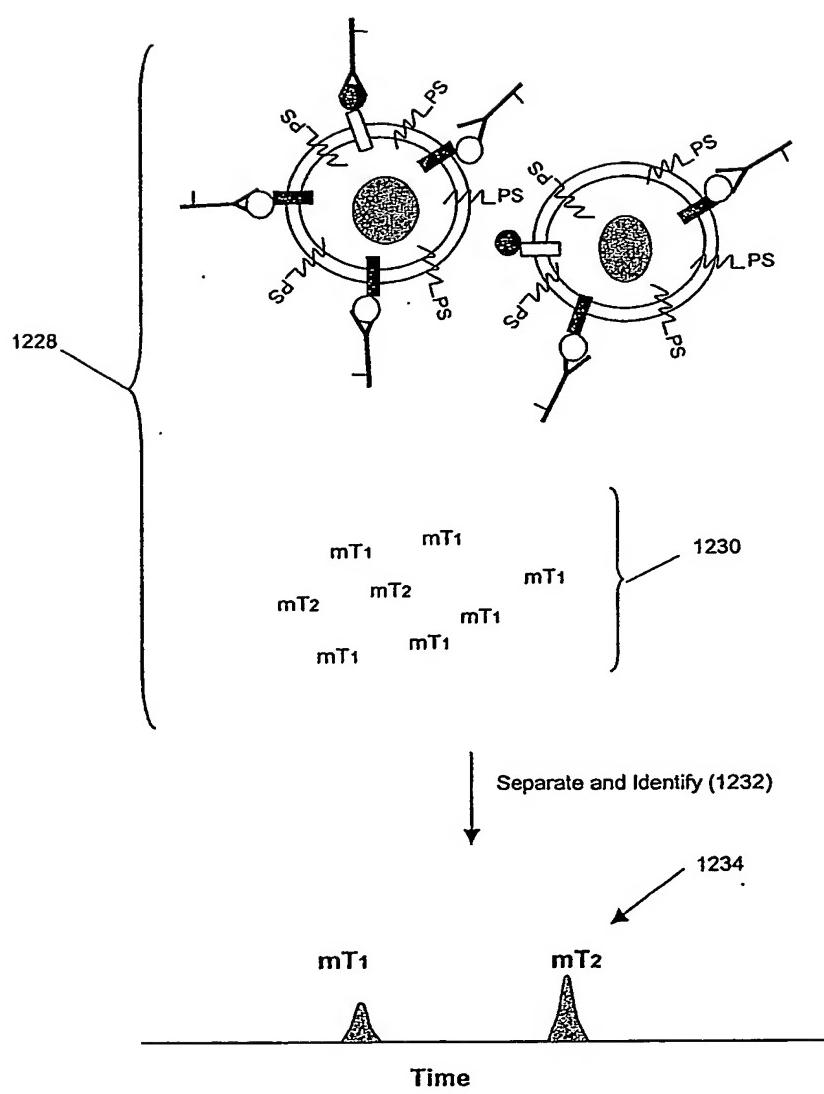


Fig. 1G

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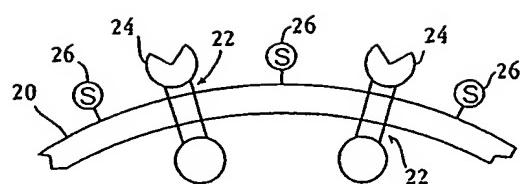


Fig. 1H

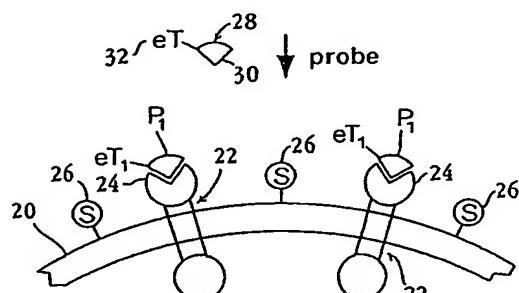


Fig. 1I

↓ hν

34 - eT_i

Fig. 1J

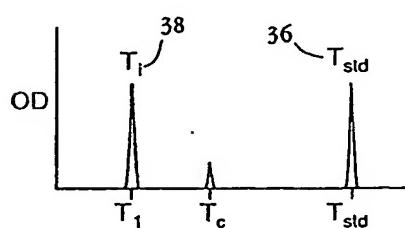


Fig. 1K

9 of 50

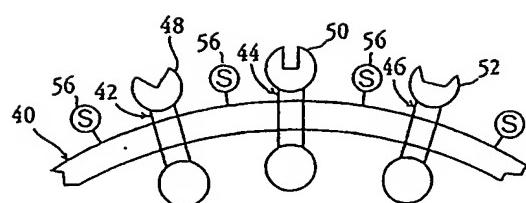


Fig. 1L

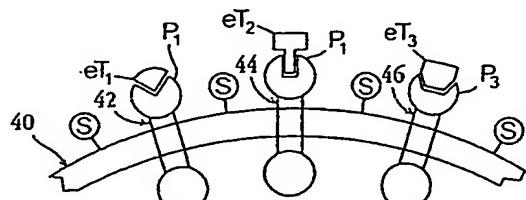
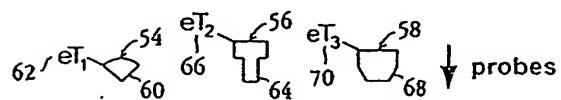


Fig. 1M

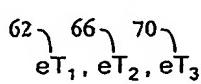


Fig. 1N

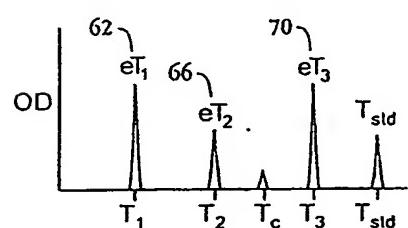


Fig. 1O

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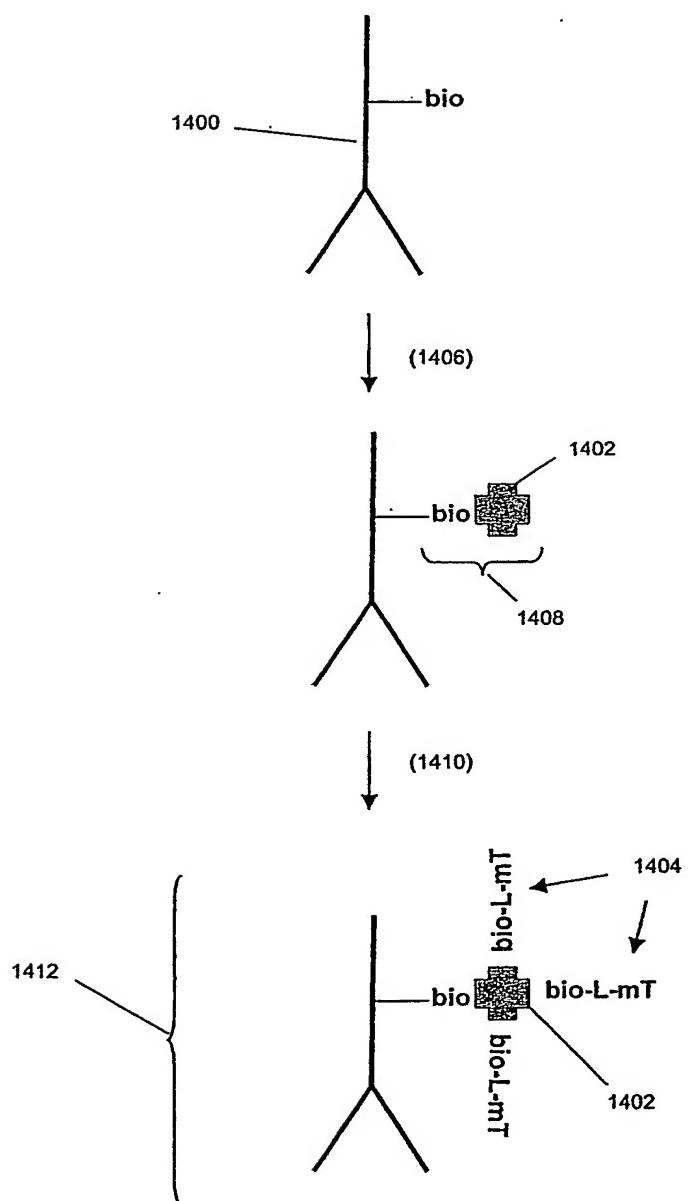


Fig. 1P

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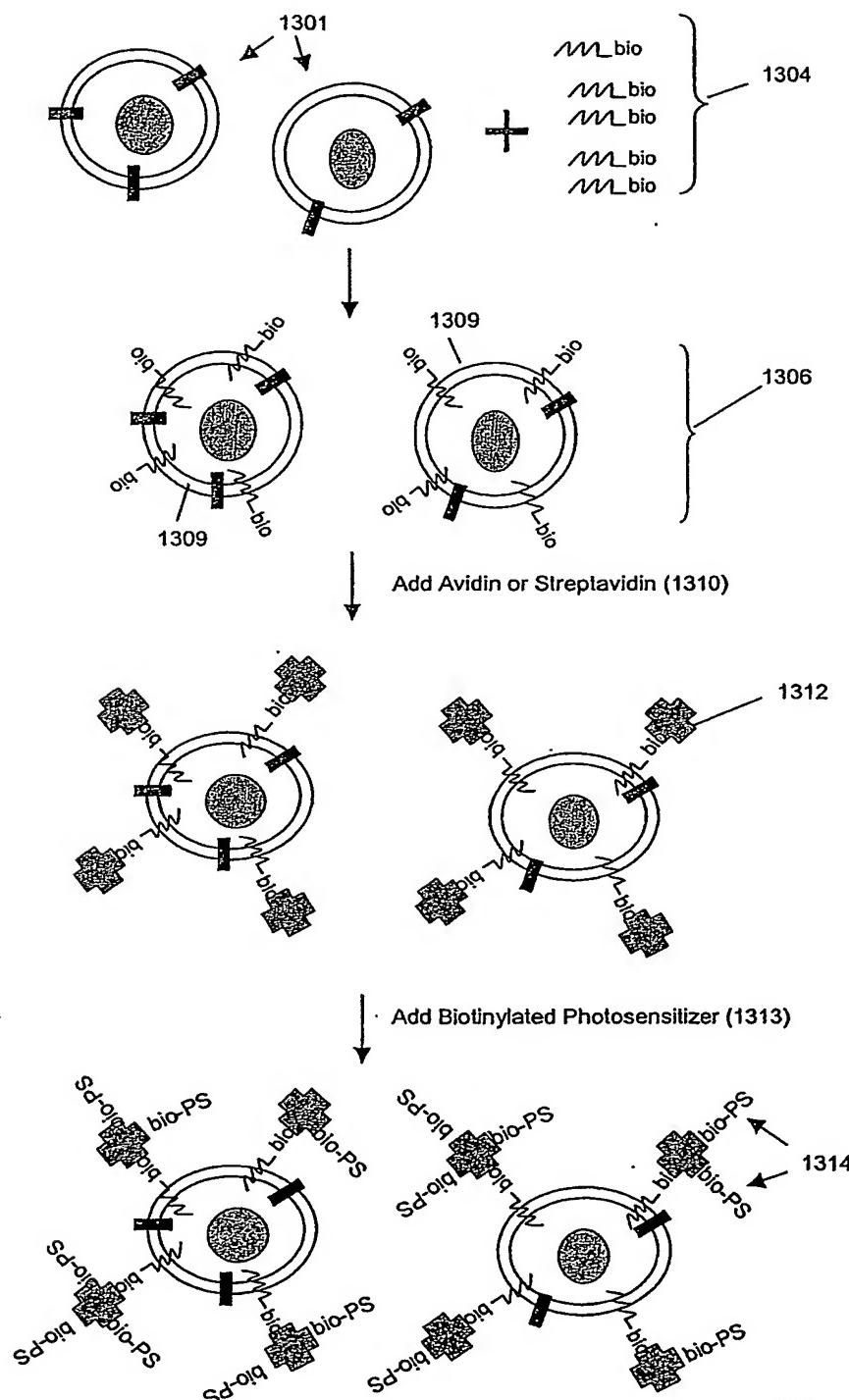


Fig. 1Q

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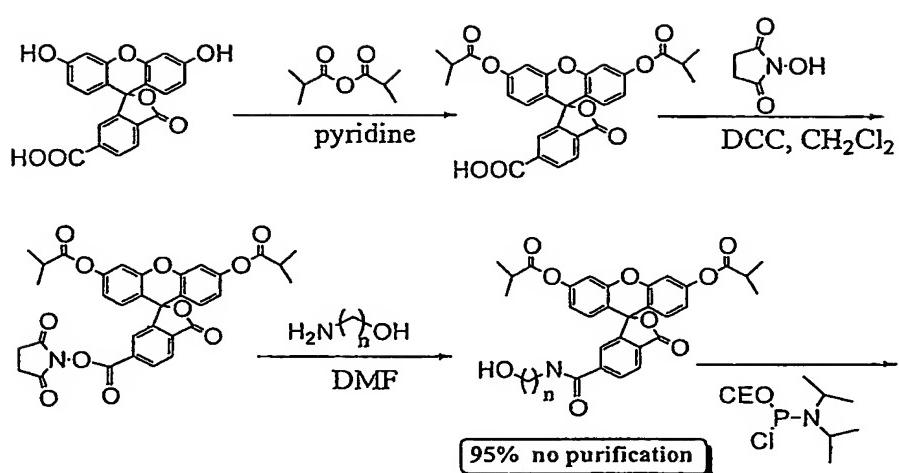


Fig. 2

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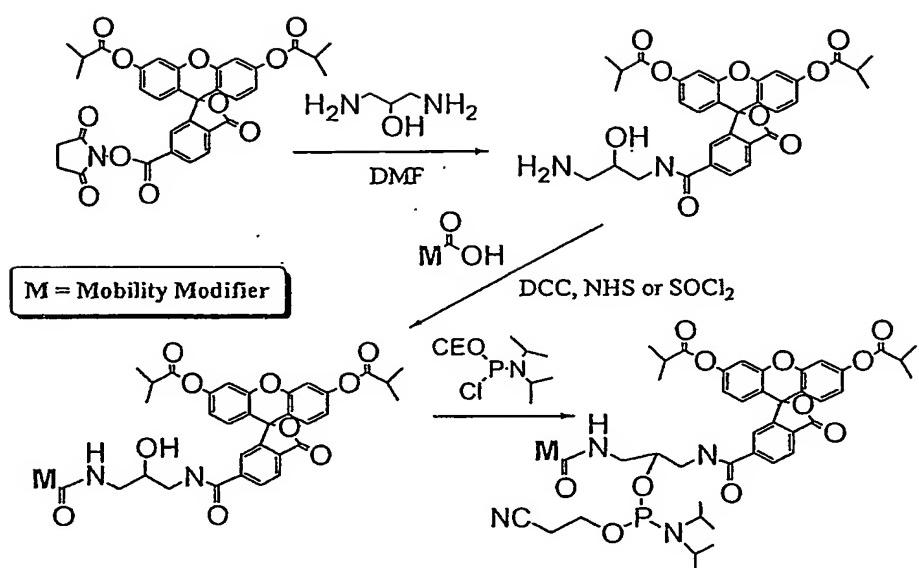


Fig. 3

14 of 50

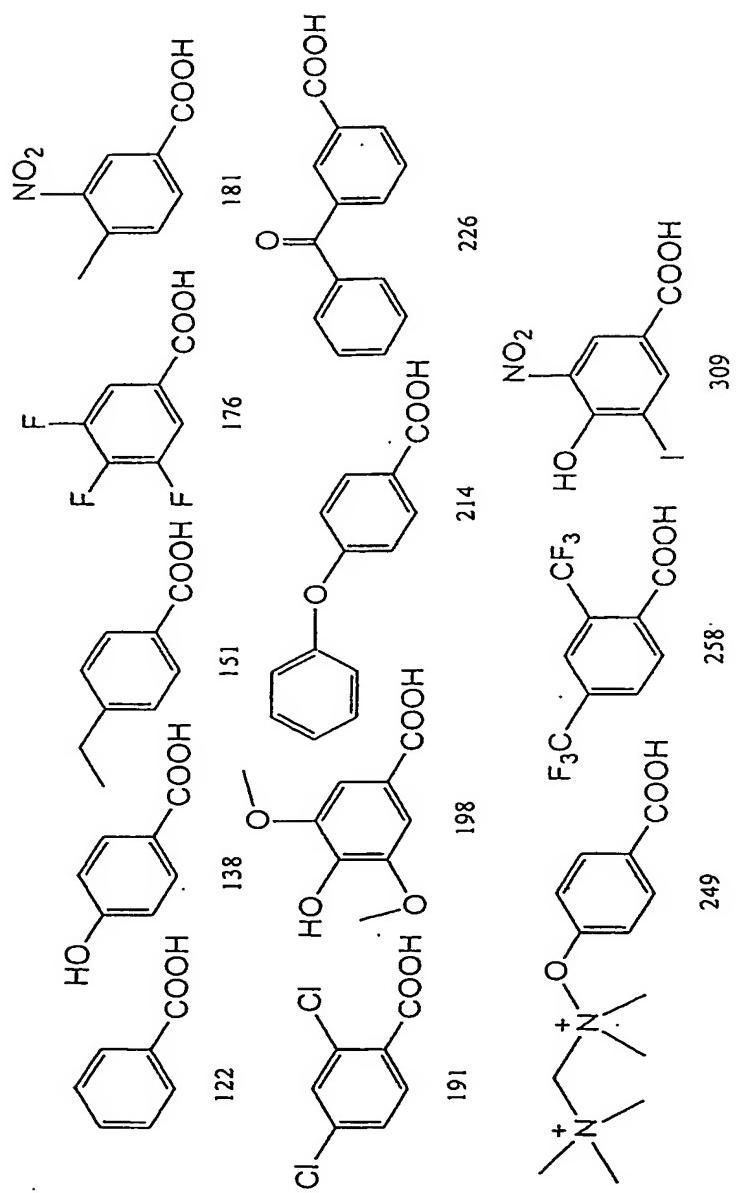


FIG. 4

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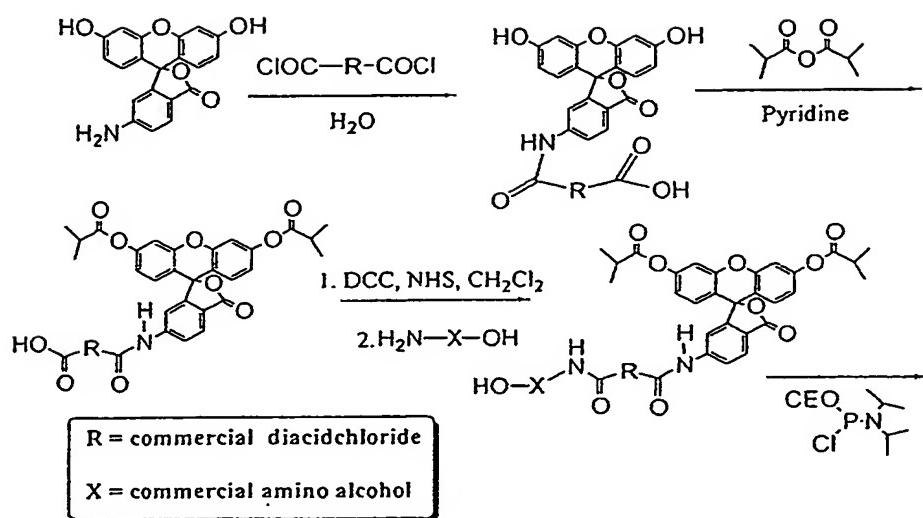


FIG. 5

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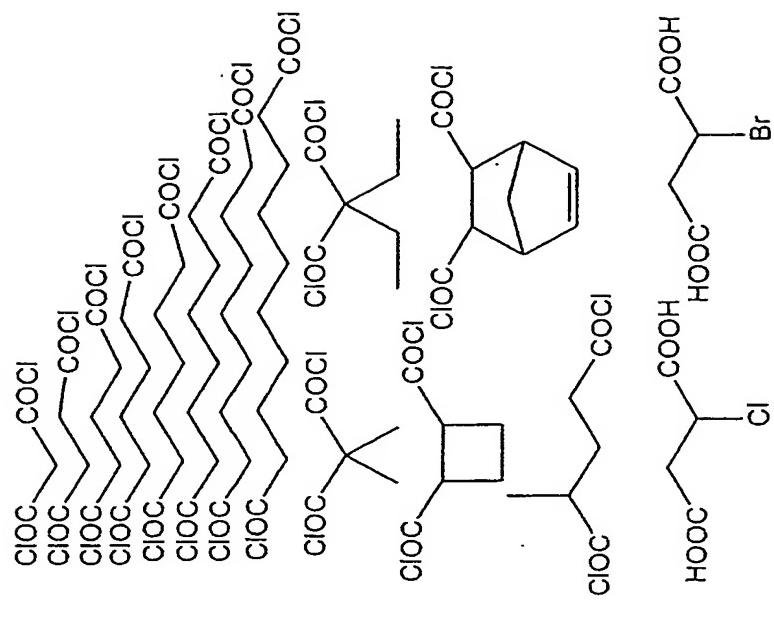
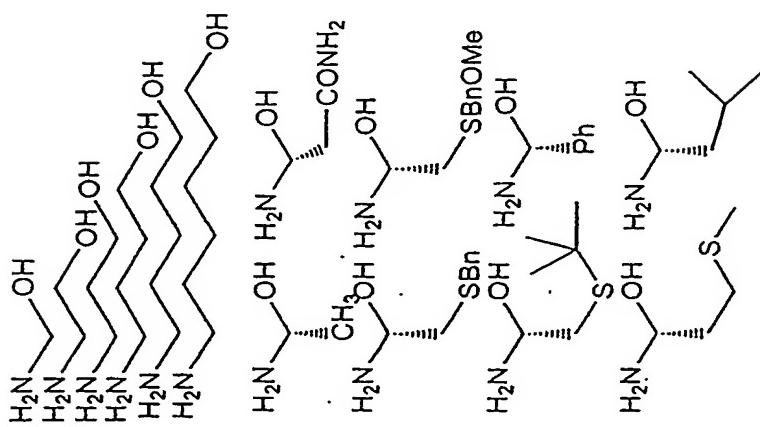
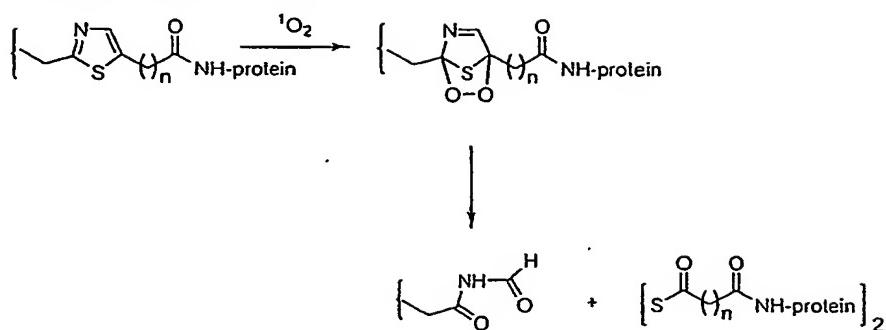
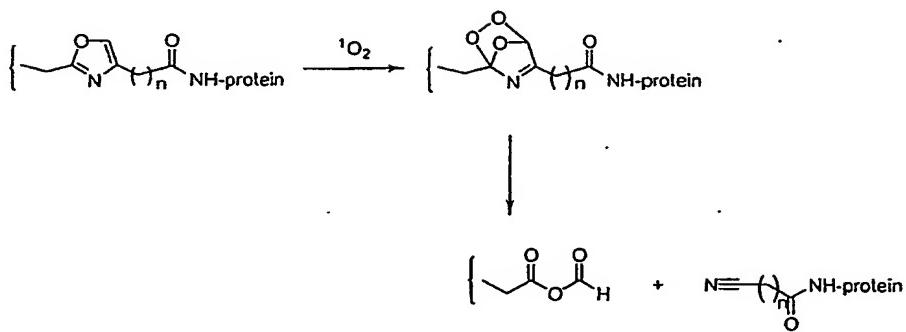


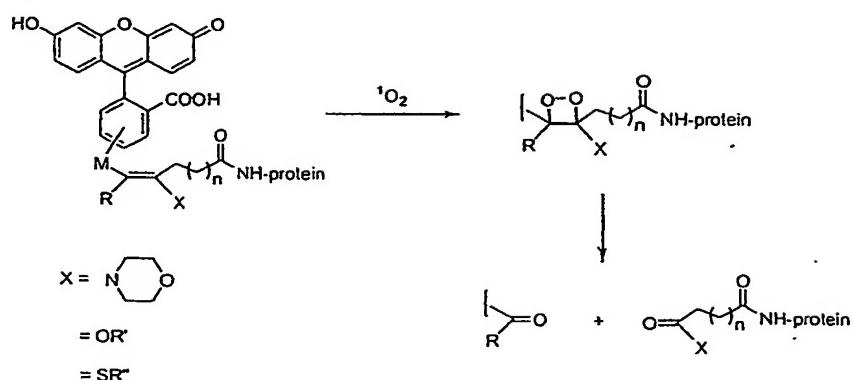
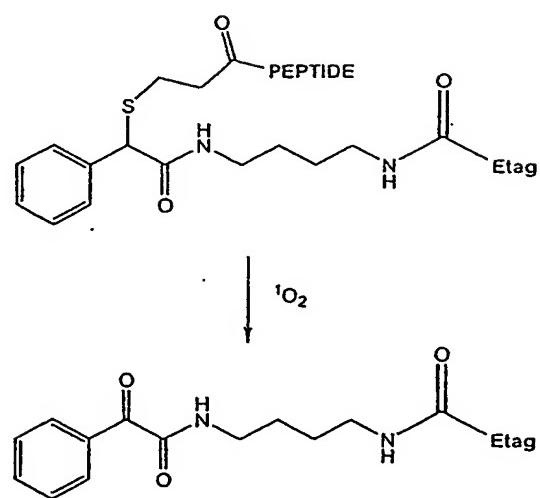
FIG. 6



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Thiazole cleavable linkage**FIG. 7A****Oxazole cleavable linkage****FIG. 7B**

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Olefin cleavable linkage**FIG. 7C****Thioether cleavable linkage****FIG. 7D**

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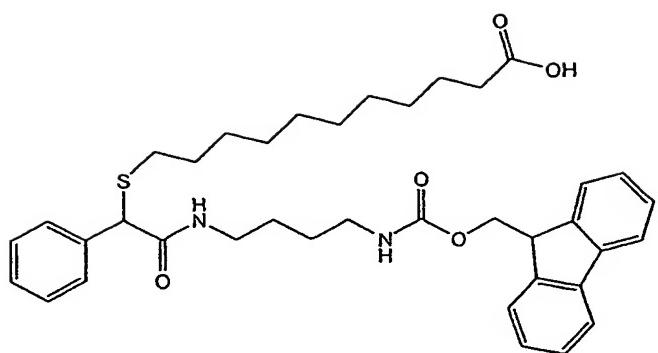


FIG. 7E

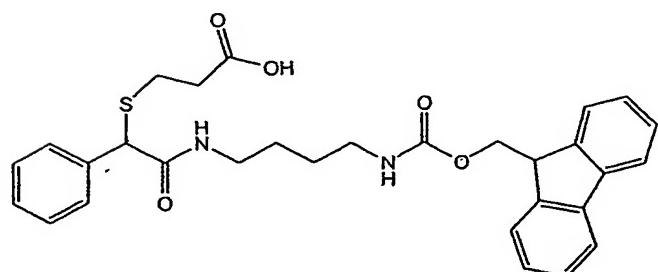


FIG. 7F

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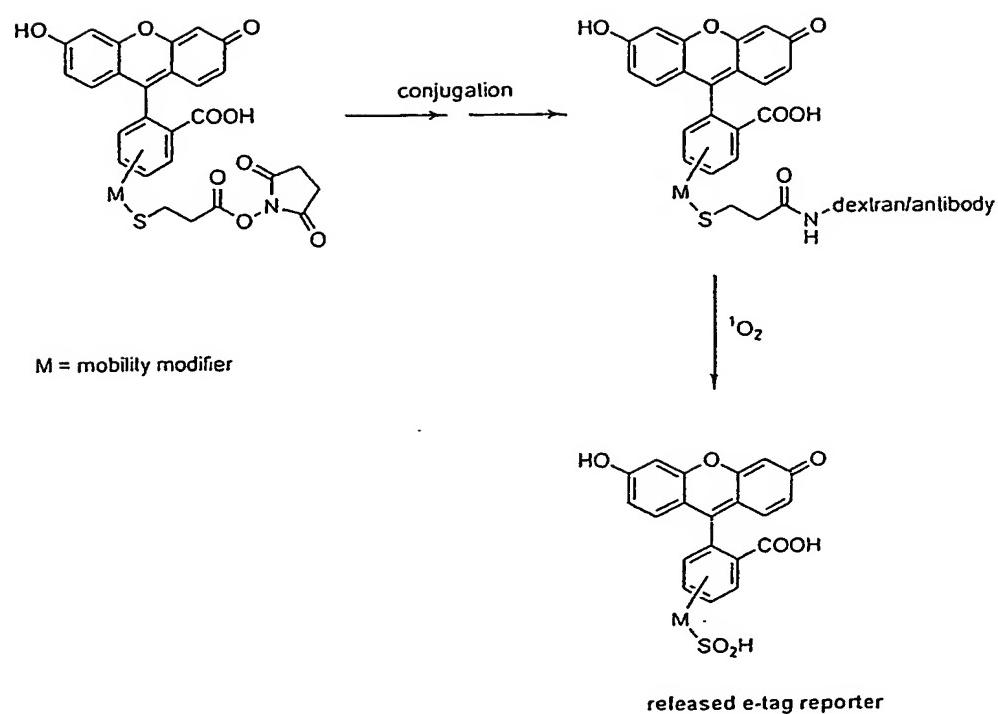
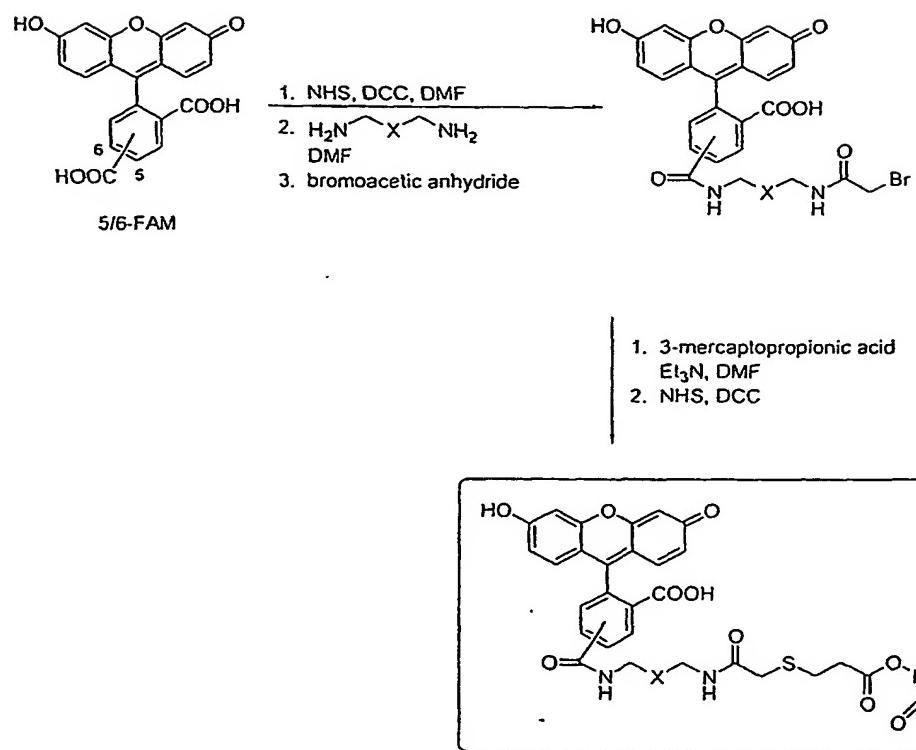
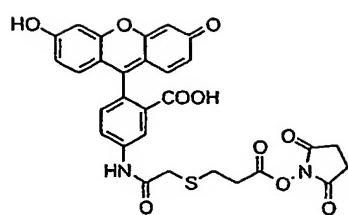


FIG. 8A

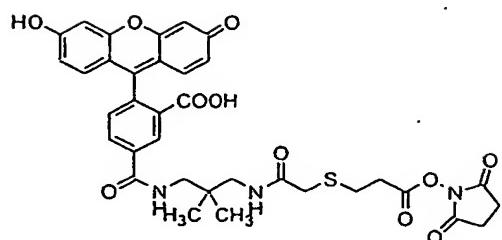
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Synthesis of FAM-derived eTags**FIG. 8B**

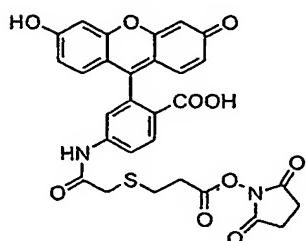
22 of 50



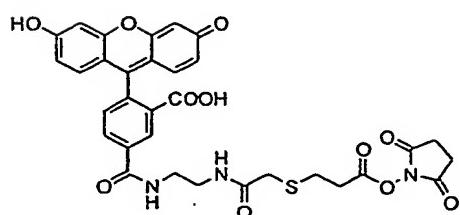
Pro1-NHS



Pro2-NHS



Pro3-NHS



Pro4-NHS

FIG. 9A

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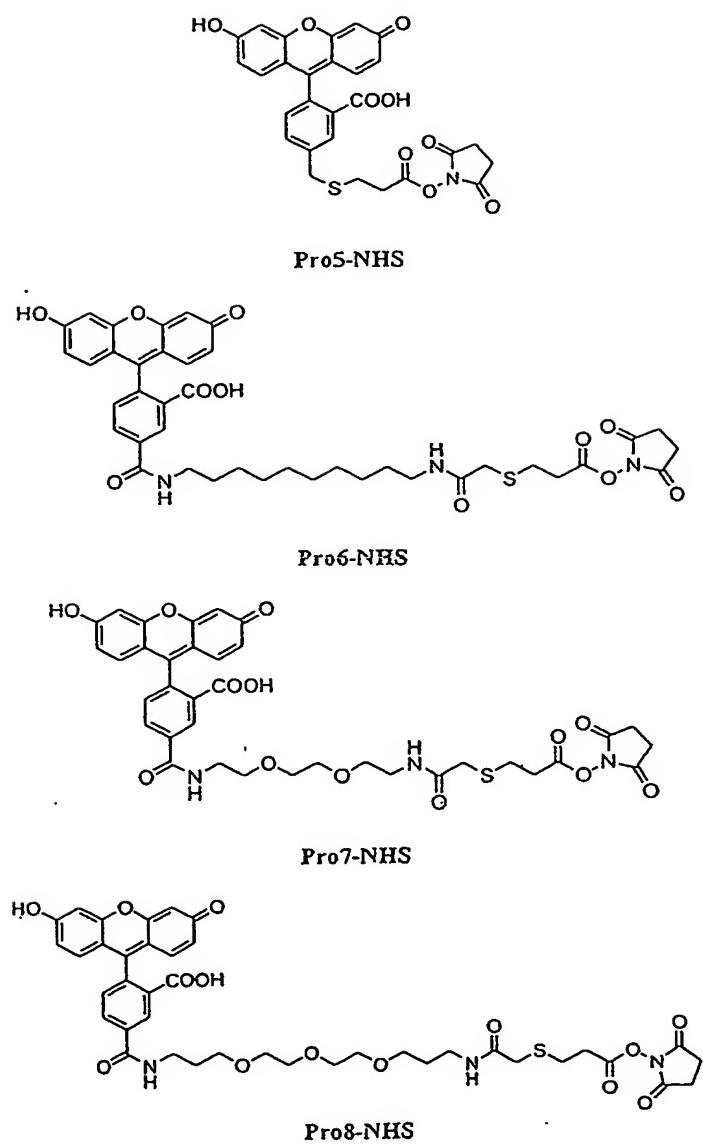
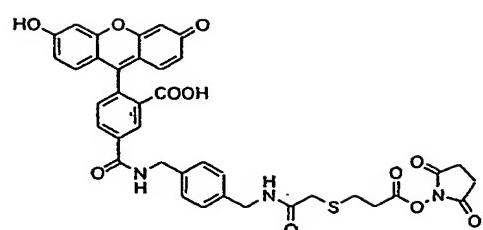
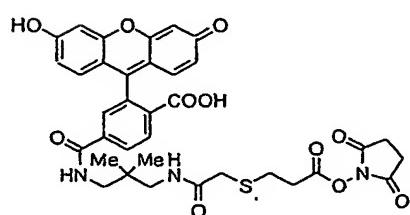


FIG. 9B

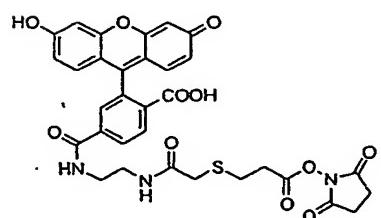
24 of 50



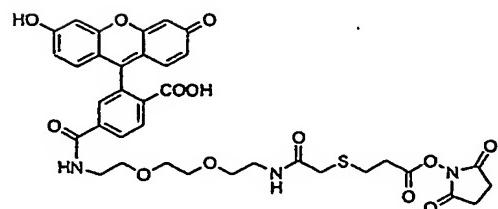
Pro9-NHS



Pro10-NHS



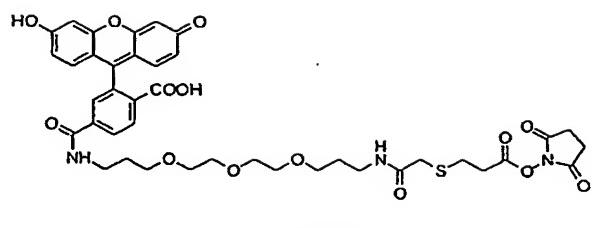
Pro11-NHS



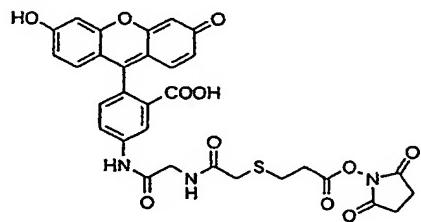
Pro12-NHS

FIG. 9C.

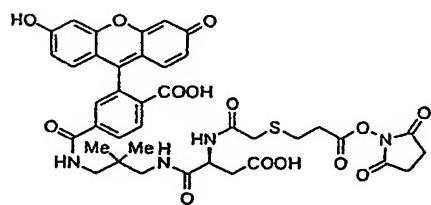
25 of 50



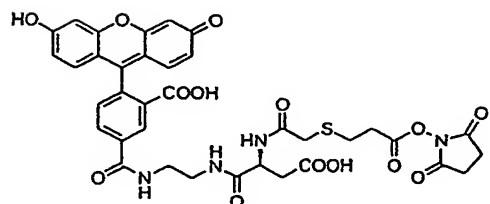
Pro13-NHS



Pro14-NHS



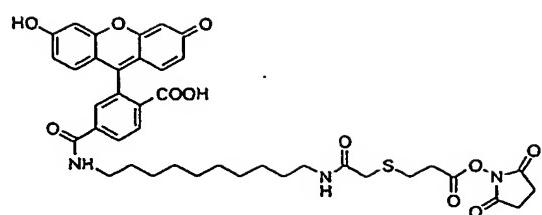
Pro15-NHS



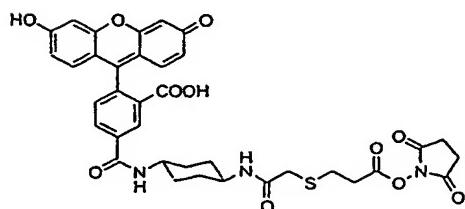
Pro16-NHS

FIG. 9D

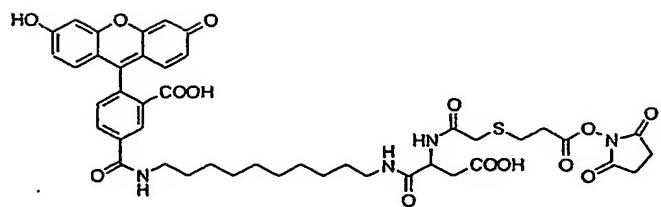
26 of 50



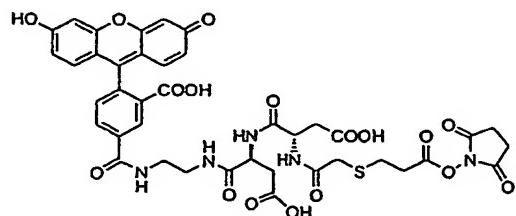
Pro17-NHS



Pro18-NHS



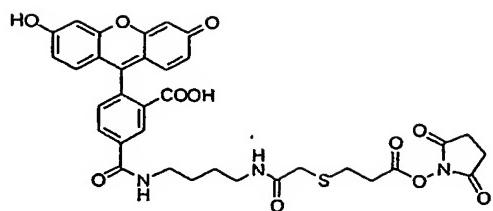
Pro19-NHS



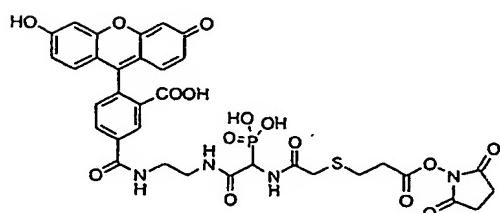
Pro20-NHS

FIG. 9E

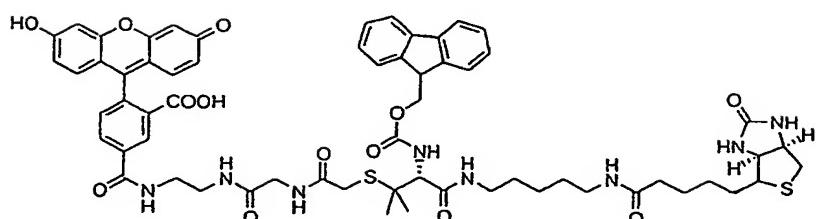
27 of 50



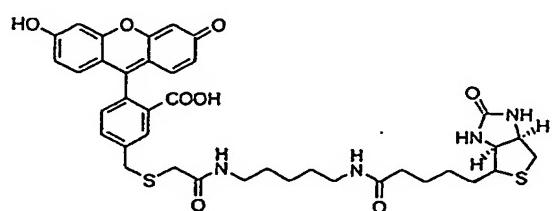
Pro21-NHS



Pro22-NHS



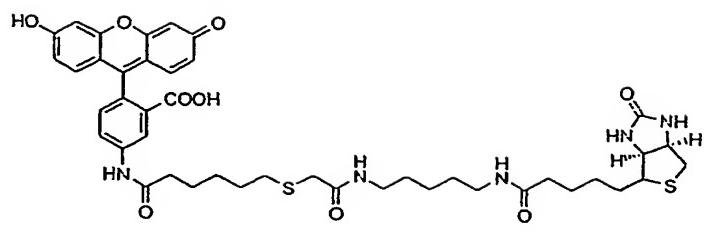
Pro23-biotin



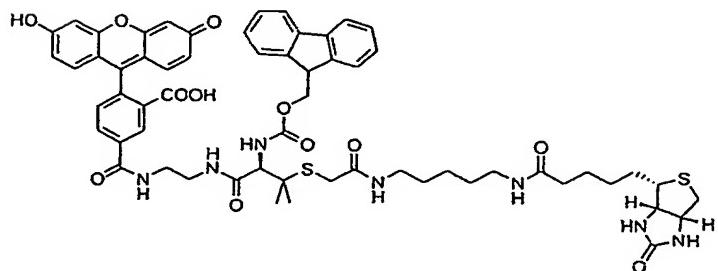
Pro24-biotin

FIG. 9F

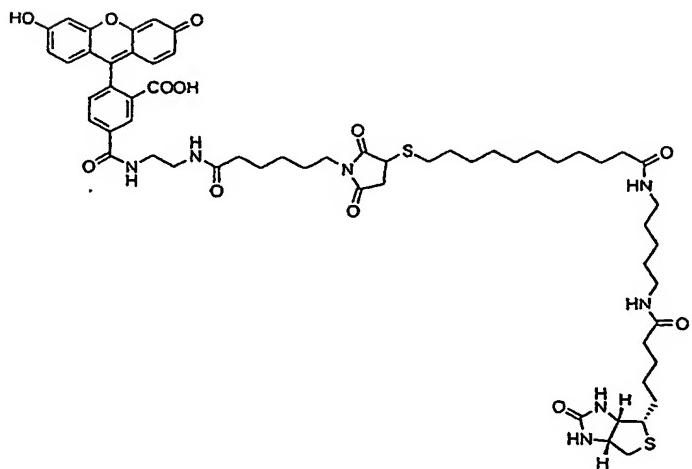
28 of 50



Pro25-biotin



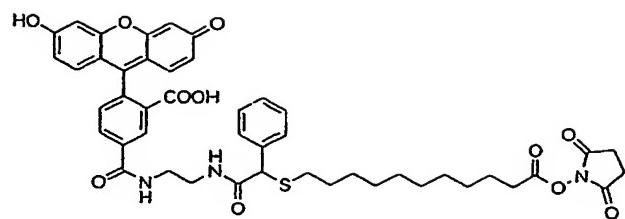
Pro26-biotin



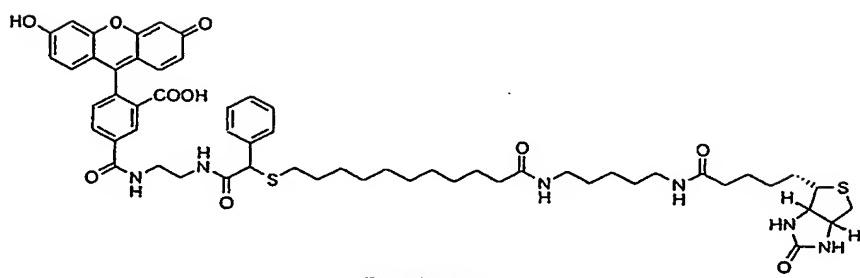
Pro27-biotin

FIG. 9G

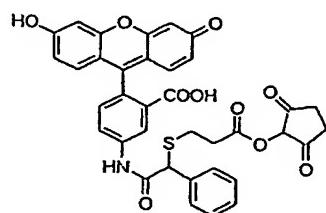
29 of 50



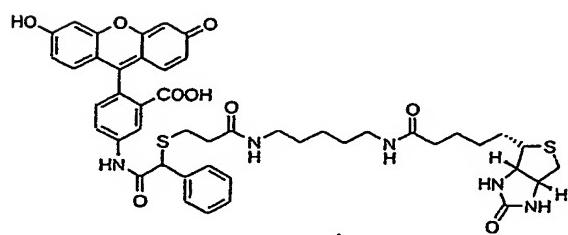
Pro28-NHS



Pro28-biotin



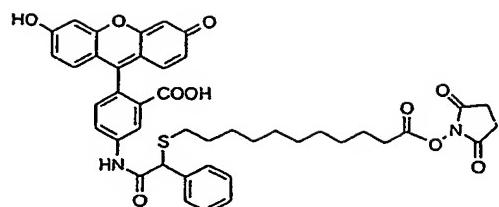
Pro29-NHS



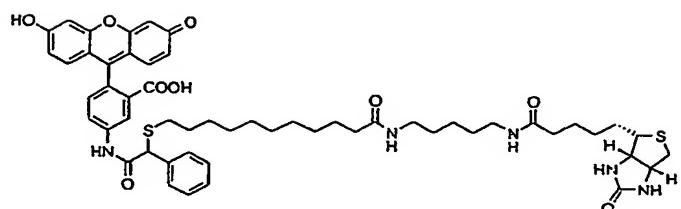
Pro29-biotin

FIG. 9H

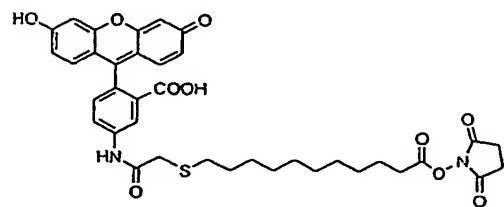
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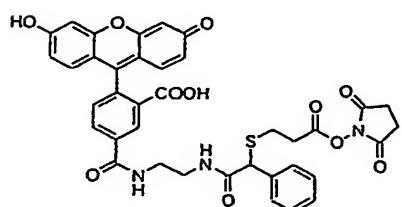
Pro30-NHS



Pro30-biotin



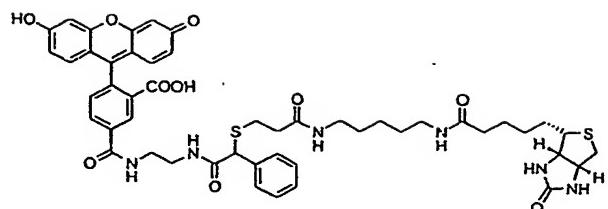
Pro31-NHS



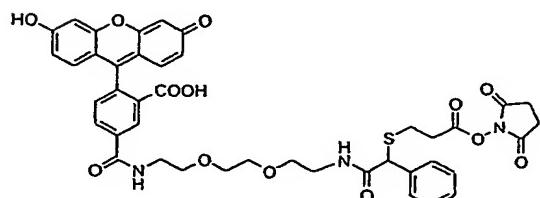
Pro32-NHS

FIG. 9*i*

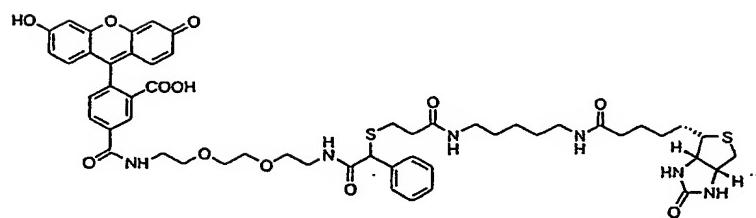
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Pro32-biotin



Pro33-NHS



Pro33-biotin

FIG. 9J

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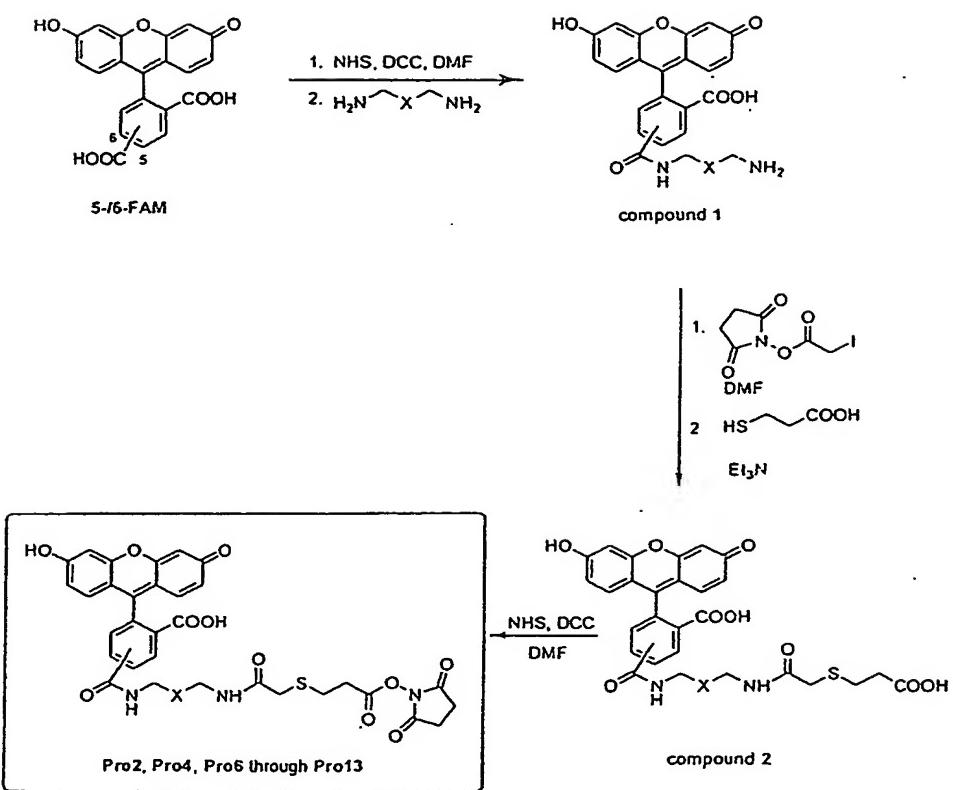
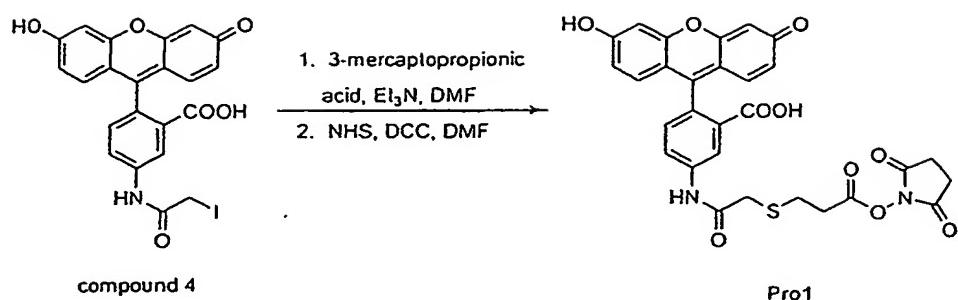
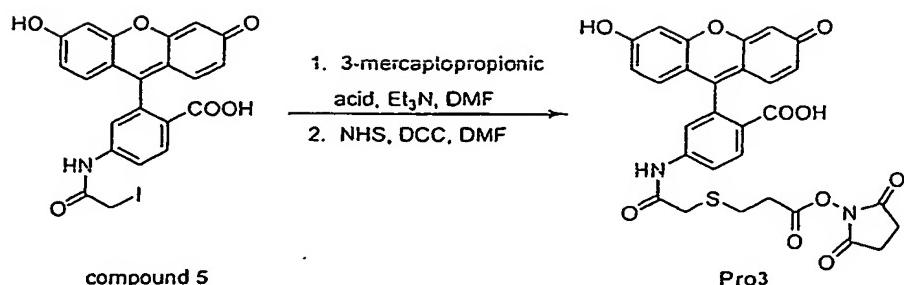
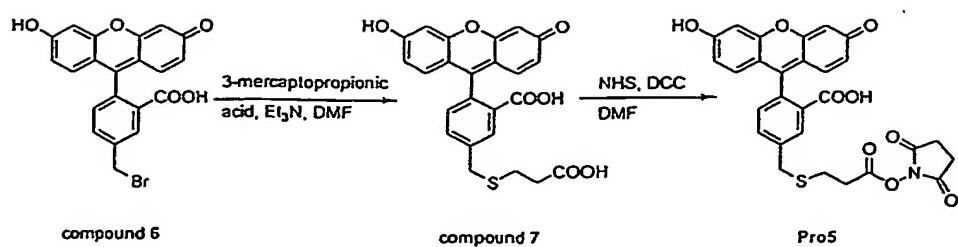


FIG. 10A

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*FIG. 10B**FIG. 10C**FIG. 10D*

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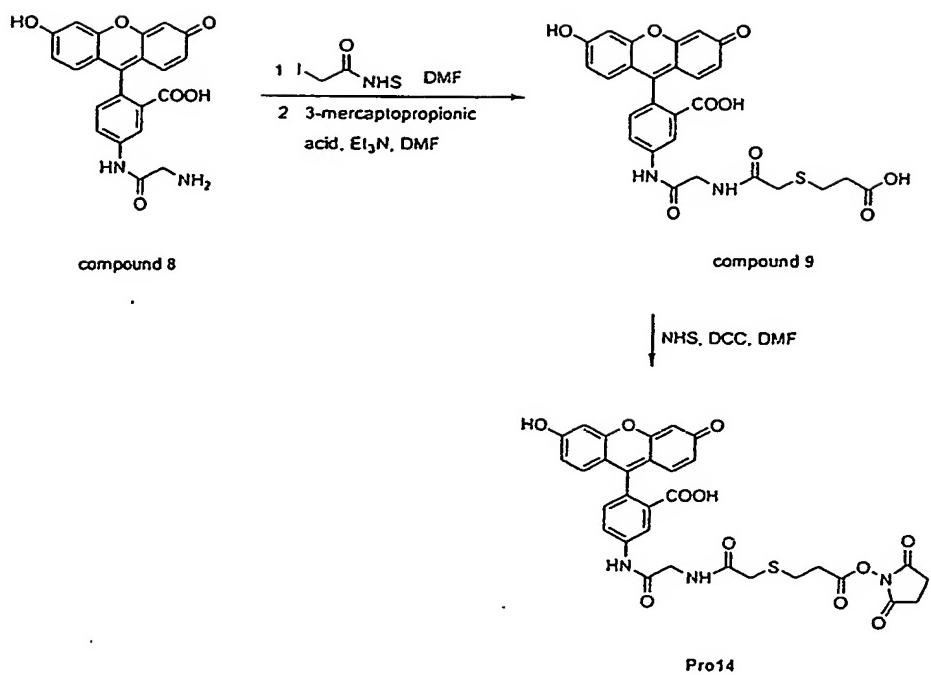


FIG. 10E

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Synthesis of Pro15

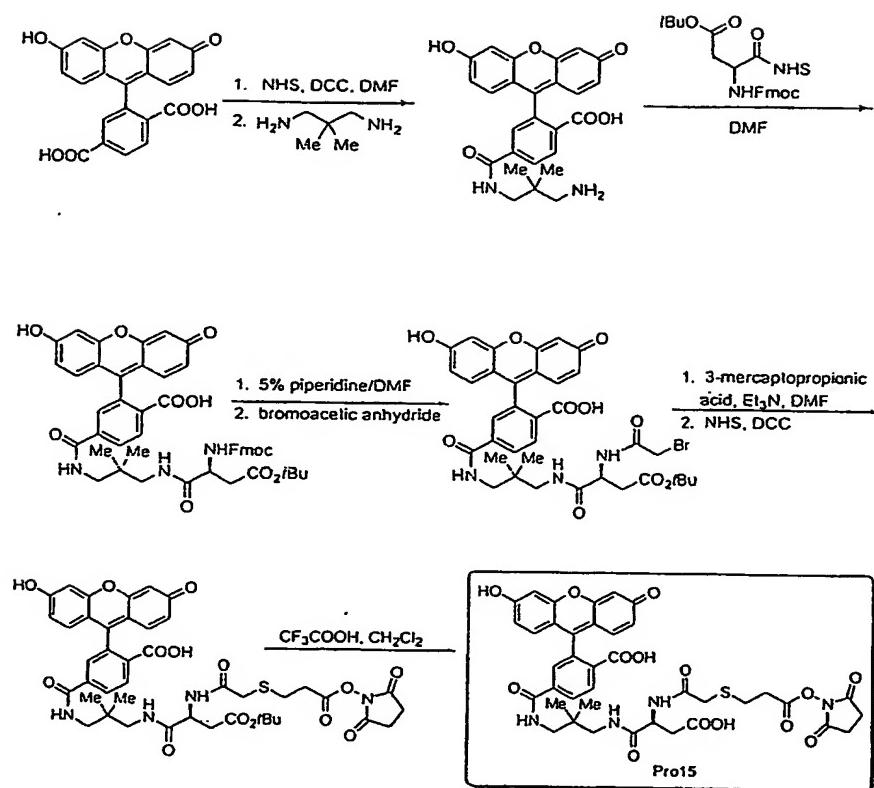


FIG. 10F

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Synthesis of Pro20

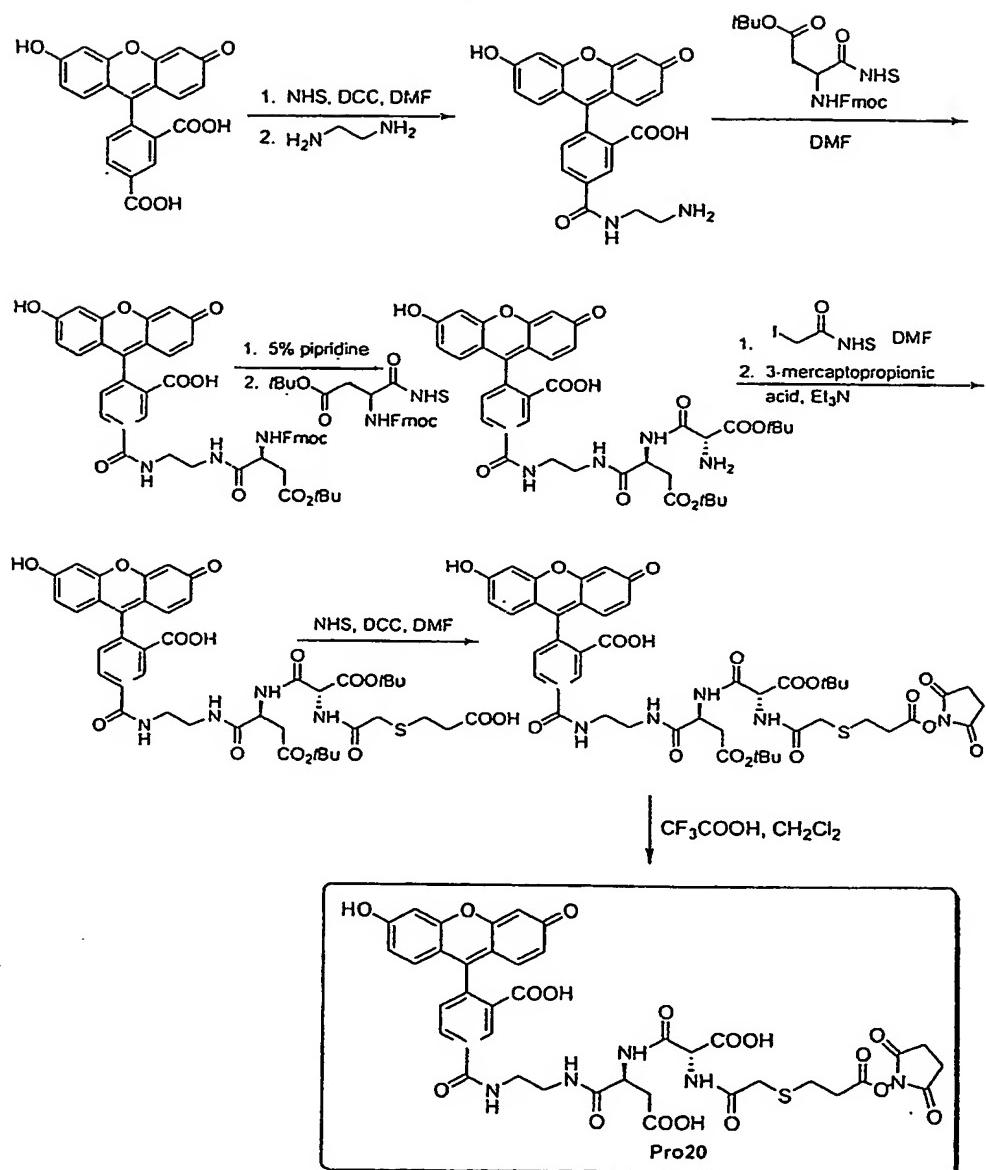


FIG. 10G

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Synthesis of Pro22

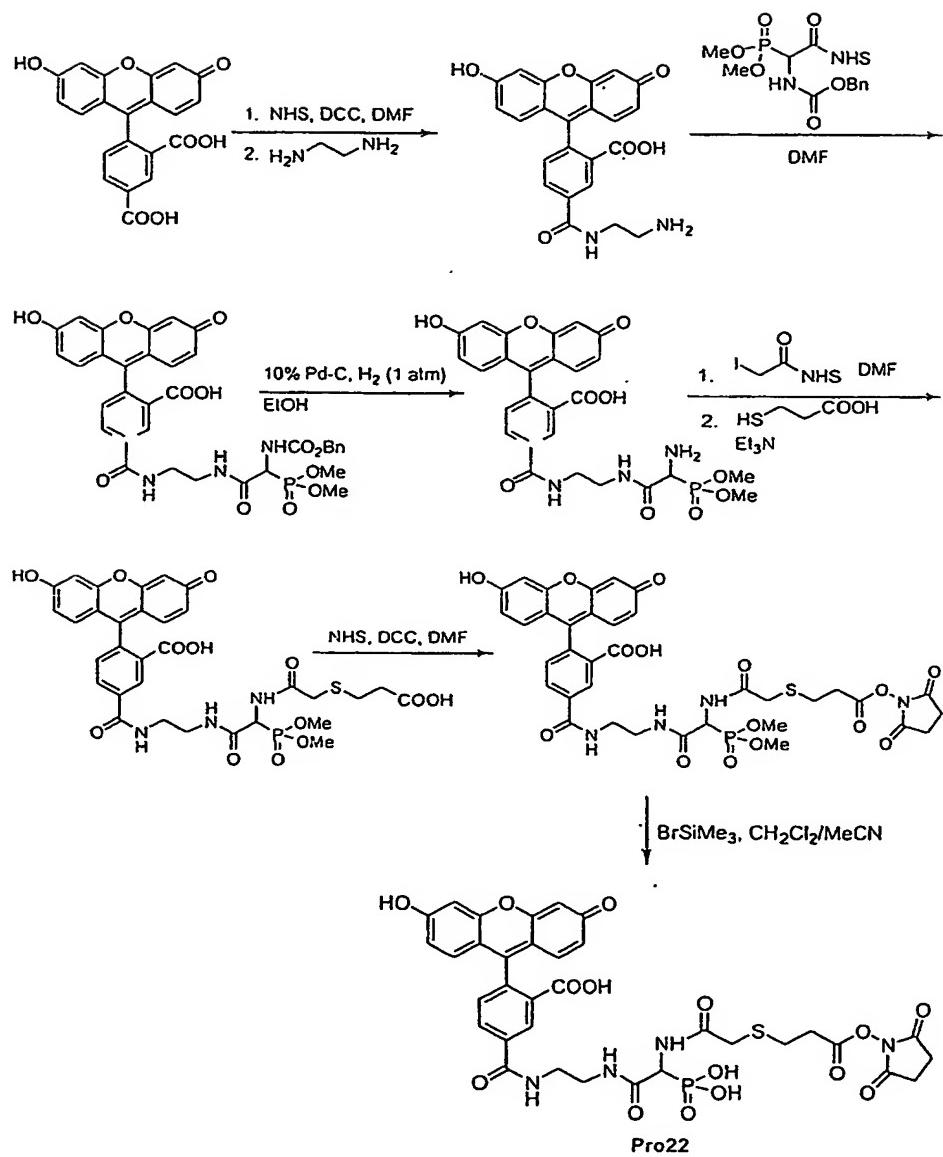
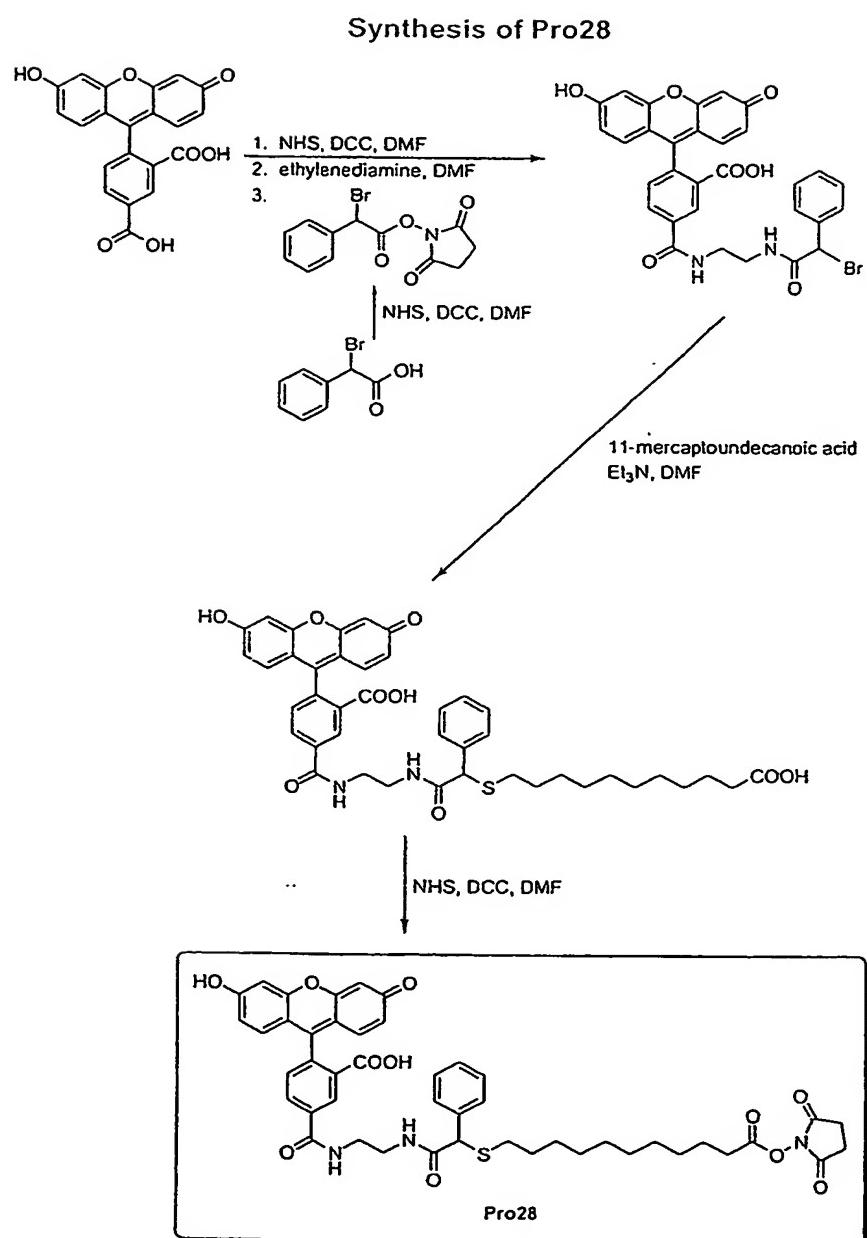
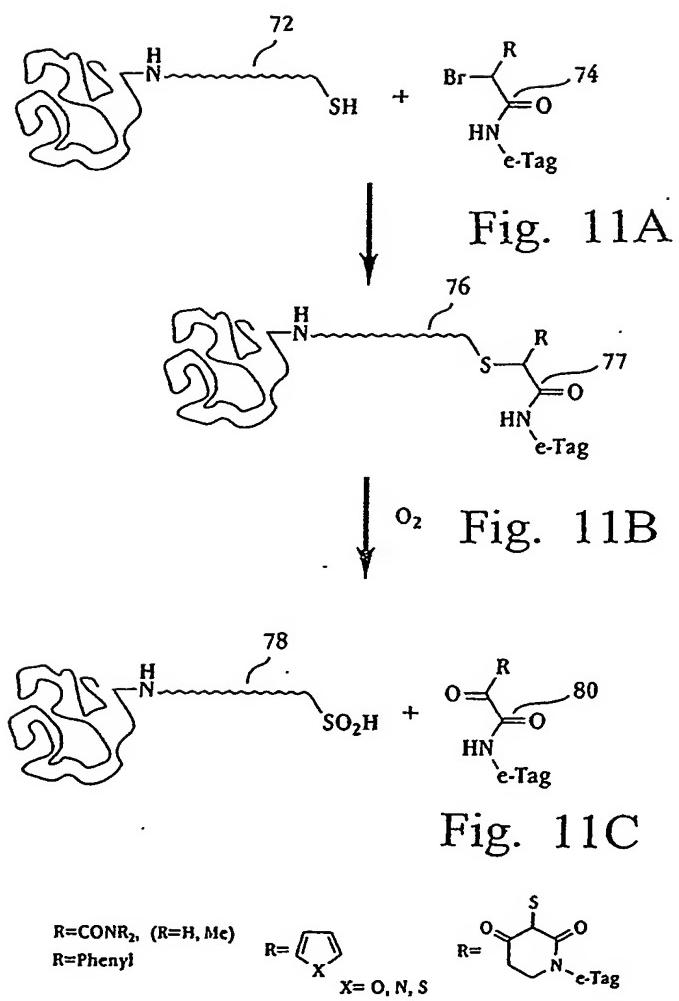


FIG. 10H

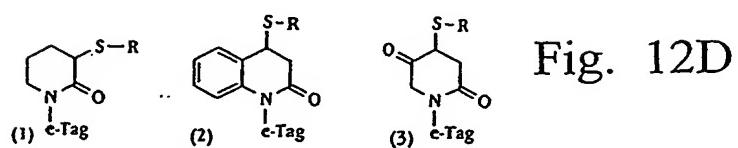
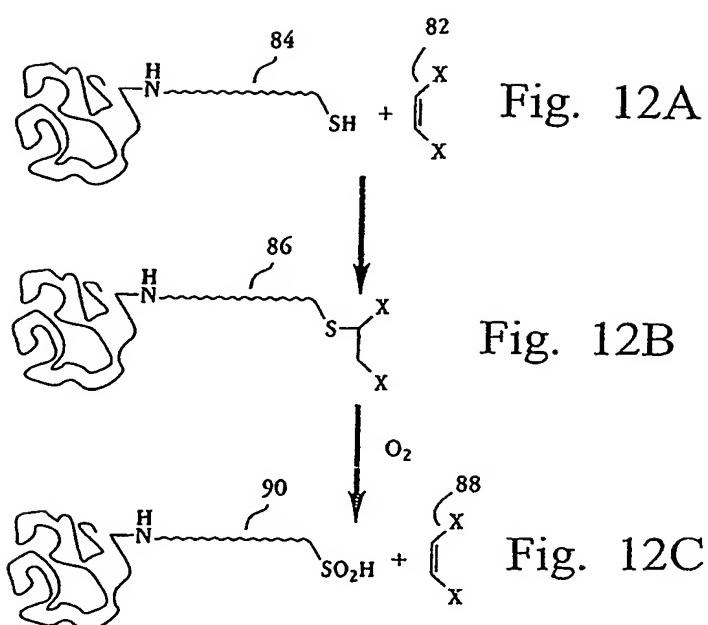
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**FIG. 10i**

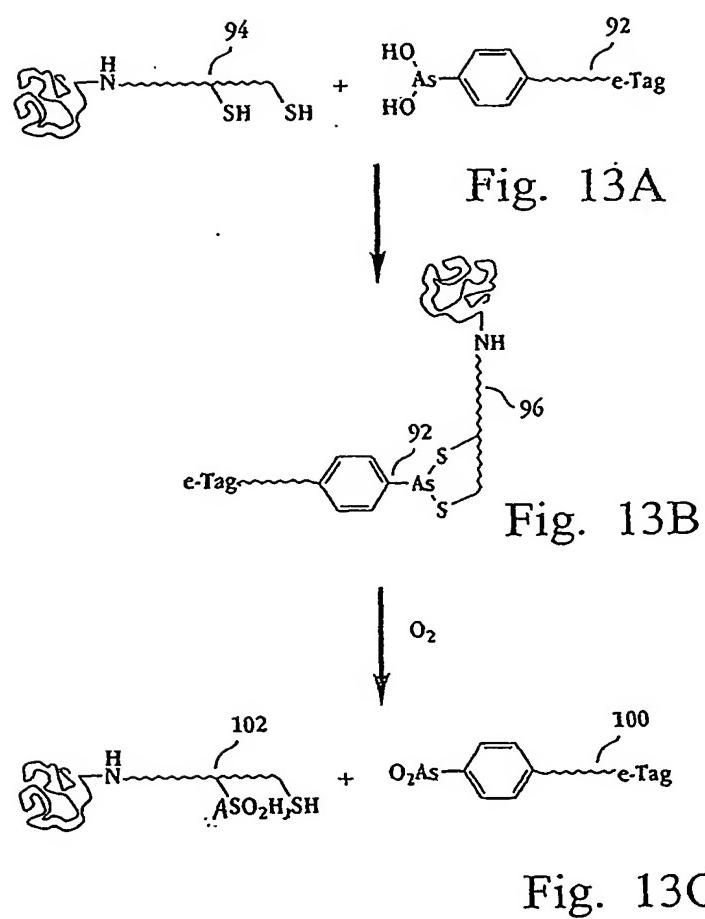
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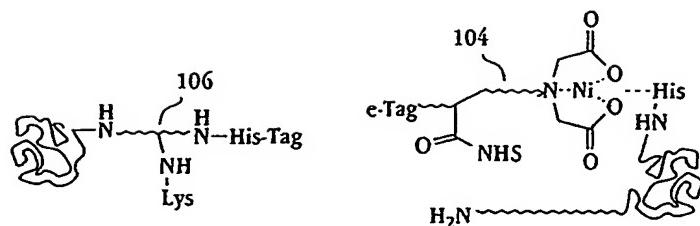


Fig. 14A

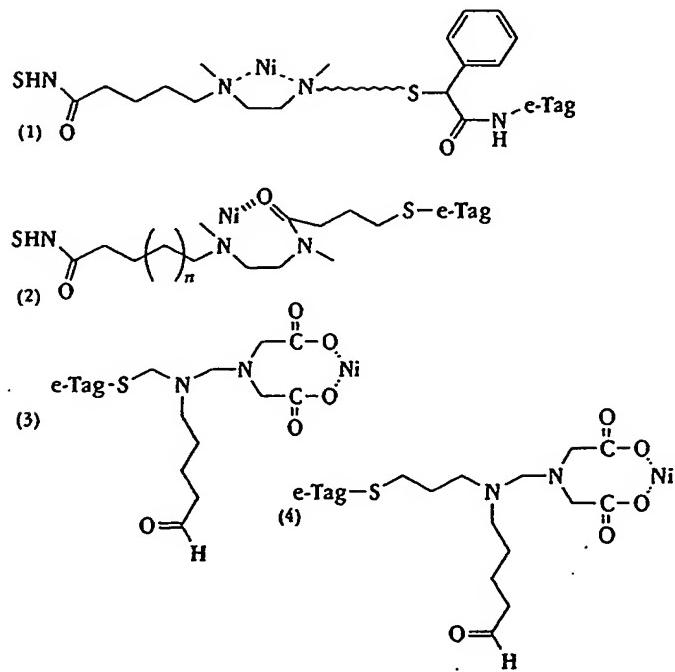


Fig. 14B

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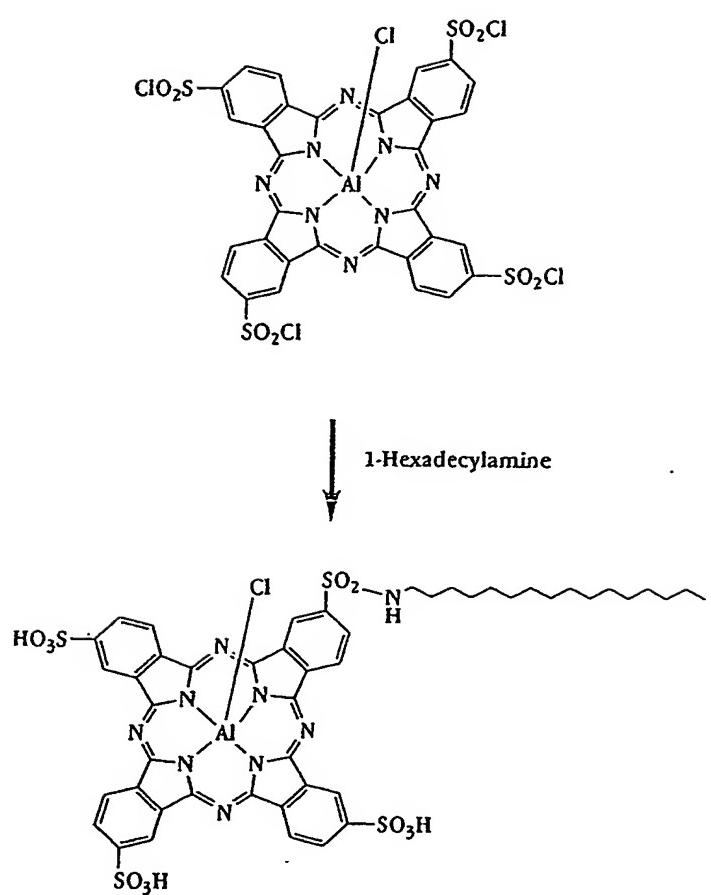
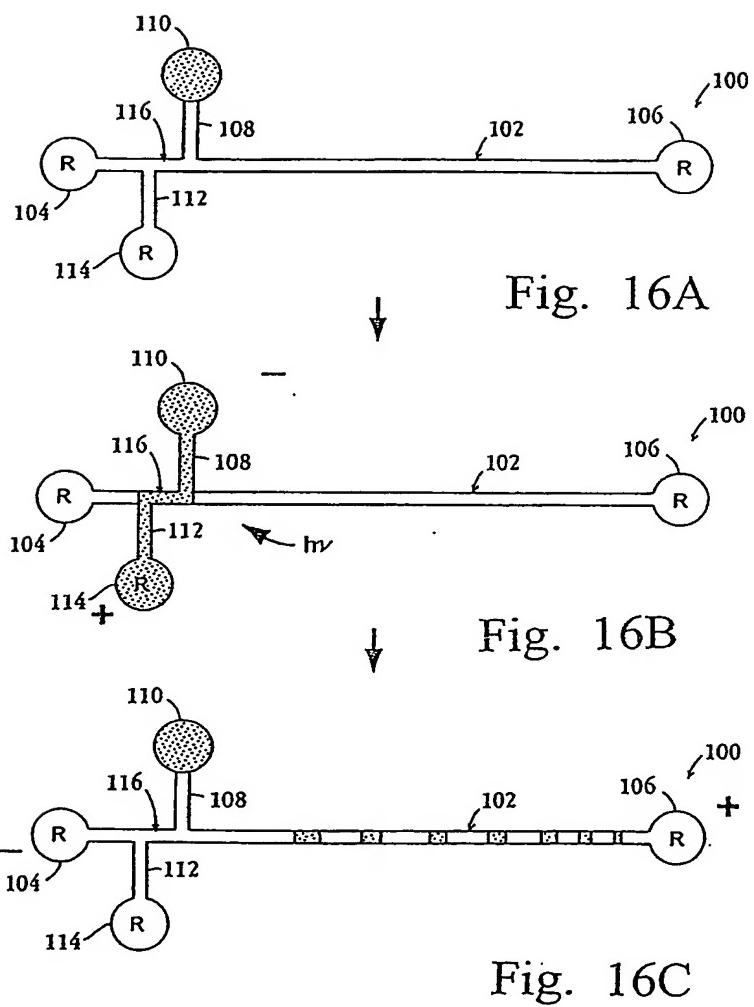


Fig. 15

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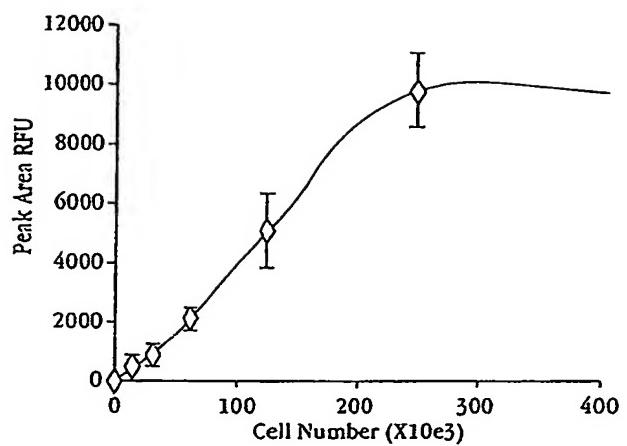


Fig. 17

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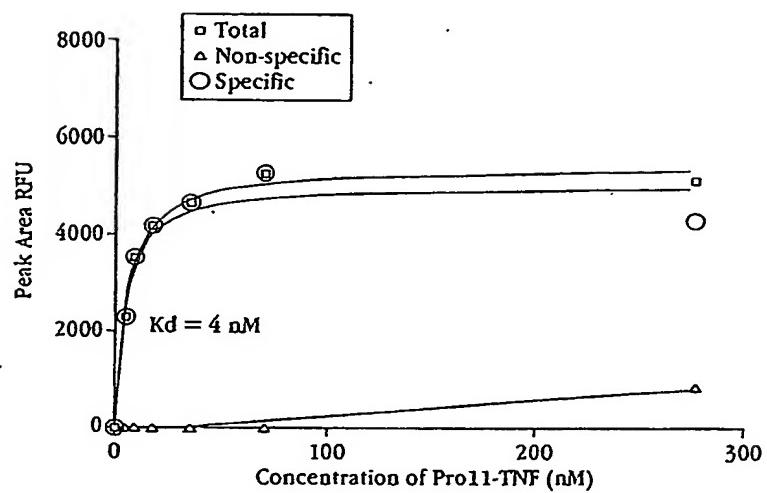


Fig. 18A

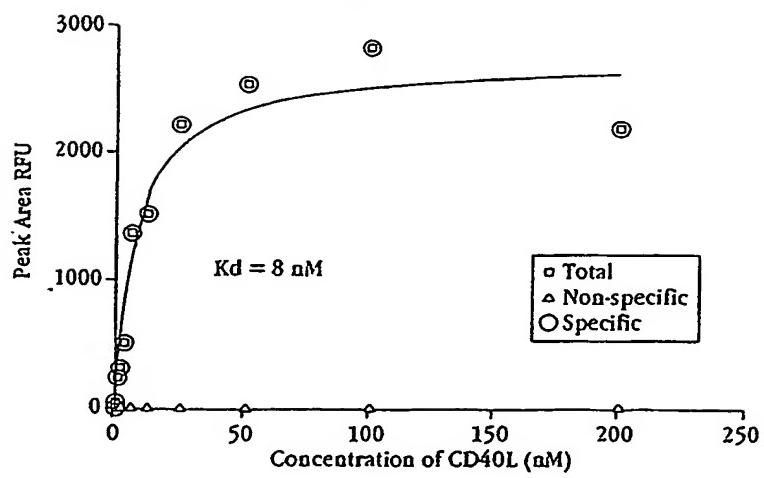


Fig. 18B

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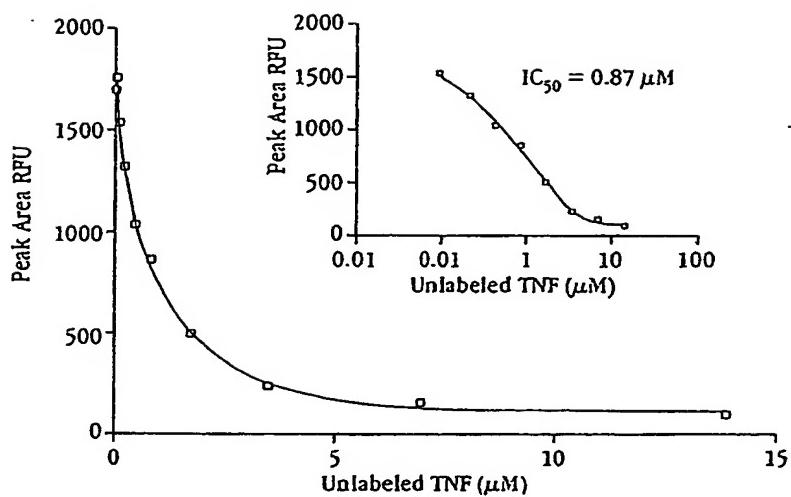


Fig. 19

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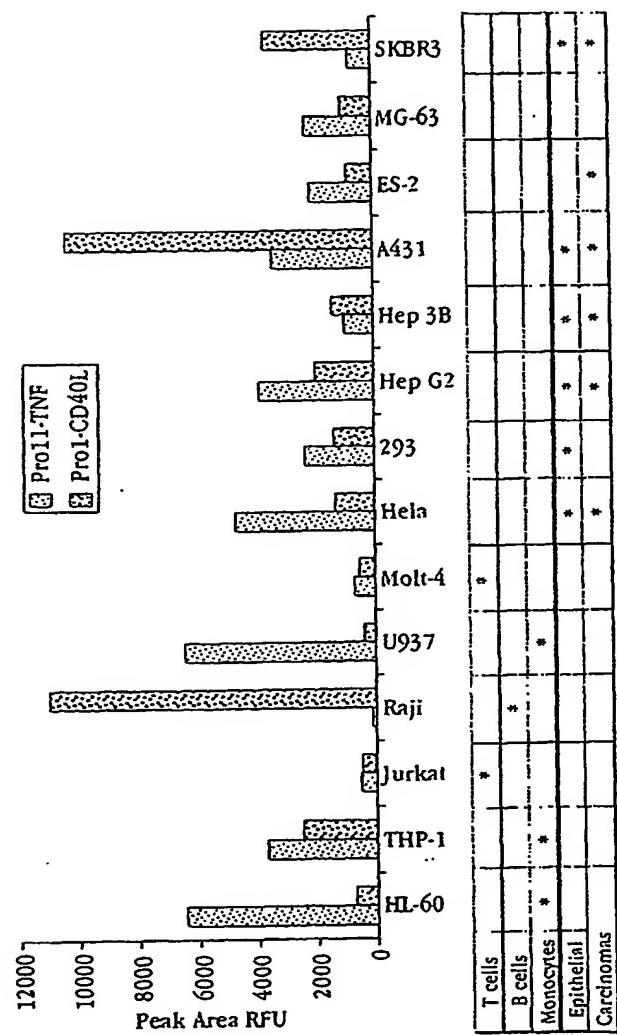


Fig. 20

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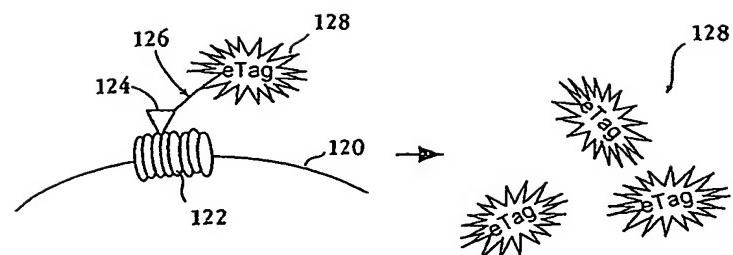


Fig. 21A

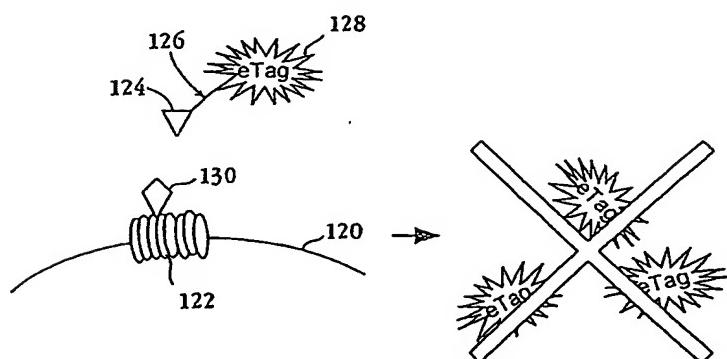


Fig. 21B

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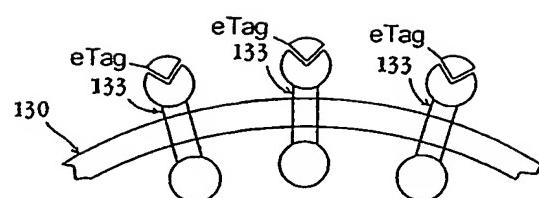


Fig. 22A

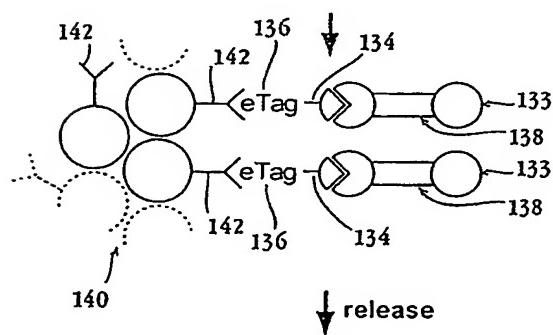
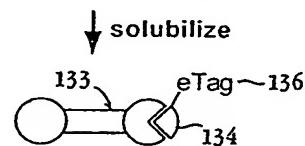


Fig. 22B

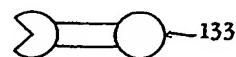


Fig. 22C